

State of Alaska
Department of Natural Resources
Division of Forestry
Coastal Region
Mat-Su Area

Forest Land Use Plan/Preliminary Decision
For the
2008 Willer-Kash Timber Sale
Area
Sc-2905M

Winter 2008-2009



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I. INTRODUCTION

A. Purpose

The purpose of this Forest Land Use Plan (FLUP) is to provide sufficient information for reviewers to ensure that the best interest of the state will be served by the Department of Natural Resources (DNR) Division of Forestry (DOF) offering an estimated total gross volume of 1,610 cunits of birch and white spruce for sale. (A cunit equals 100 cubic feet of solid wood.) This volume is configured in 5 different harvest units that compose a total of 170 acres. The total estimated volume for these units consists of 1,440 cunits of paper birch logs and 170 cunits of white spruce logs. The harvest units may be sold as separate sales or sold in combination with each other under the provisions of AS 38.05.120 [Disposal Procedure]. If no qualified bid is received within the time specified for a sale, the Division of Forestry may offer the timber for purchase over-the-counter for not less than the advertised minimum bid without further notice. Approximately one mile of secondary roads will be constructed for this sale. The contract period will last two years.

The public is invited to comment on this timber sale with regards to the best interest finding (AS 38.05.035, Powers and Duties of the Director). Comments should be mailed to the Mat-Su Area Forester, Alaska Division of Forestry, 101 Airport Road, Palmer, Alaska, 99645. Comments must be received at the Division of Forestry office no later than ~~April 21, October 11, 2006~~ [April 21, October 11, 2006](#) in order to be considered in the final decision of whether the sale will be held in whole or in part. To be eligible to appeal the final decision a person must have provided written comment by ~~April 21, October 11, 2006~~ [April 21, October 11, 2006](#).

B. Five-Year Sale Schedule

The footprint these proposed sales occupy has been shown as a potential sale area in the previous Five-Year Schedule of Timber Sales (FYSTS) for Calendar Years 2007-2011 as required by AS 38.05.113 (Five Year Sale Schedule).

C. Location

The legal description of this proposed action is as follows: Sections 20, 21, 28, and 29, T20N, R3W in the Seward Meridian. The sale area is shown on the attached map.

Willow is the nearest community, located approximately 7 miles west of the sale area. This area is located on the United States Geological Survey 1:63,360 Quadrangle map titled Anchorage D-8. The tract is accessed by driving east on the Willow Fishhook Road, then north on the Shirley-Towne Road, crossing Willow Creek, then turning right on the Willer-Kash Road for approximately 1.8 miles, then turning right on an existing logging road.

The regional Native corporation is Cook Inlet Regional Inc. Montana Creek is the nearest village corporation and the Caswell Native Association is the nearest Native group.

D. Title, Classification and Other Active or Pending Interests

The sale area is within Management Unit 1b of the *Willow Sub-basin Area Plan*, Subunit B of the *Kashwitna Management Plan*, and KP 1b of the *Susitna Forest Guidelines*. Subunit B is designated as co-primary use for Forestry/Fish & Wildlife in the *Willow Sub-basin Area*

Plan and the *Kashwitna Management Plan*. This land use designation and the management intent specifically allow for timber harvest. The *Kashwitna Management Plan*, referring to Subunits A and B, states: “The state lands in these subunits will be retained in public ownership and managed to provide timber for commercial and personal use, maintain and enhance moose habitat, and provide opportunities for public use. In Subunit B, guidelines for grazing ensure compatibility with forest and habitat management.” There are three recreation sites in the *Kashwitna Management Plan* that do not allow timber harvesting. The closest site, the Willow Creek Mountain Recreation Site, is approximately 500 feet from the nearest harvest unit. This 40 acre site was set aside in the Willow Subbasin Area Plan for potential development as a trailhead to join the Willow Creek Mountain Trail. The Willow Creek Mountain Trail and an unnamed tributary of Willow Creek separate the nearest unit from the recreational site.

E. Planning Framework

The decision to offer these sales was based on a long series of planning decisions, made with public and agency input every step of the way. This document, the Forest Land Use Plan (FLUP) for the timber sales, is one of the final steps in this long planning process. The planning for where timber harvest is appropriate, and where it is not appropriate, is done at a much broader scale than the FLUP. The framework for how management decisions are made for timber sales in the Susitna Valley is as follows:

1. Area plans, management plans, and land use plans (in this case, the *Willow Sub-basin Area Plan* and the *Kashwitna Management Plan*) determine where timber harvesting is allowed.
2. The *Susitna Forestry Guidelines* and the Forest Resources and Practices Act and Regulations determine how timber will be managed within areas where harvesting is allowed by the area plan.
3. The Five-Year Schedule of Timber Sales proposes when timber sales will be offered, and approximately where and how big each sale will be.
4. Next, a Forest Land Use Plan is written for each individual sale, which contains more detailed decisions about each sale.

1. The *Willow Sub-Basin Area Plan* (October 1982) and the *Kashwitna Management Plan* (April 1991) are the broad-scale analyses of the types of land uses appropriate on different areas of state land in the southern Matanuska-Susitna Borough. The *Willow Sub-Basin Area Plan* covers approximately 750,000 acres. The *Kashwitna Management Plan* (April, 1991) amends the Willow Sub-basin Area Plan in the Kashwitna Unit and the Iron Creek and Little Willow Creek subunits. The management plan directs state land management by the DNR, covering approximately 36,030 acres of state, borough and private lands.

Both the area plan and the management plan processes were the means to openly review resource information and public concerns prior to making long-range decisions about public land management. The planning processes determined how the complete range of uses would be accommodated in the proposed sale area, including opportunities for forestry, as well as protecting fish and wildlife habitat, opportunities for recreation, and the whole range of other uses.

Over ninety percent of the public lands in the Willow Sub-Basin planning area are retained in public ownership and managed for multiple use, including protection of fish and wildlife habitat and provisions for hunting, fishing, and other wildlife use opportunities. Forestry is an allowed use on only 15 percent of the planning area: about 110,000 acres of the total 755,000 acres. Habitat protection and management is a primary use on approximately 50 percent of the public lands within the planning area (345,000 acres of state land and 26,000 acres of borough land, for a total of about 371,000 acres).

For these harvest units, the decision to allow timber harvest in the area was made in both the area plan and the management plan. As noted above, the sale area is within Management Units 1b of the *Willow Sub-basin Area Plan*, Subunit B of the *Kashwitna Management Plan*. Subunit B is designated as co-primary use for Forestry/Fish & Wildlife. This land use designation and the management intent specifically allow for timber harvest. The *Kashwitna Management Plan*, referring to Subunits A and B, states, “The state lands in these subunits will be retained in public ownership and managed to provide timber for commercial and personal use, maintain and enhance moose habitat, and provide opportunities for public use. In Subunit B, guidelines for grazing ensure compatibility with forest and habitat management.”

The *Kashwitna Management Plan* identifies certain areas within the planning area where timber harvesting is not allowed: specifically, within 100 feet of anadromous and high value fish water bodies, at two trailhead recreation sites, and in the Willer-Kash Road buffer.

2. Forestry activities in the Kashwitna area are also governed by the *Susitna Forestry Guidelines (SFG)* (December 1991), a document developed through a second broad-scale public planning process. The *SFG* establishes specific guidelines for forestry lands in the Susitna Valley. It was designed to provide a balanced, sustained yield of public benefits, including providing wood for personal and commercial use, supporting tourism and recreation opportunities, protecting and enhancing fish and wildlife habitat, and protecting air, land and water quality. The *SFG* states that “to provide wood, fish, game, recreation, and other benefits, state-owned forest lands will include both natural ecosystems and actively-managed forests.”

The *SFG* provides for harvest, while at the same time protecting other resources and uses. For example, even in lands classified to allow forestry activities, timber harvest is prohibited near lakes and most wetlands and streams, along the Iditarod Trail, near bald eagle nesting sites, and recreation sites.

The proposed timber sale is within *SFG* units KP 1b. Restrictions in the *SFG* that are specific to the sale area refer to the *Kashwitna Management Plan*’s buffer along the Willer-Kash Road, and the restrictions on harvesting in two trailhead recreation sites. The *SFG* allows timber harvest in the sale area, and includes guidelines for timber harvest methods, reforestation, and other aspects of the harvest activities. The Forest Resources and Practices Act and Regulations also guide timber harvest activities in the sale area.

3. Next, the Division of Forestry prepares a Five-Year Schedule of Timber Sales (FYSTS) every other year. The FYSTS gives the public, timber industry, and other agencies an overview of the division's plans for timber sales. They summarize information on proposed timber harvest

areas, timber sale access, and reforestation plans. Five-Year Schedules are subject to public and agency review. The review helps identify issues that must be addressed in detailed timber sale planning. After review and revision, DNR uses the schedules to decide how and where to proceed with timber sale planning.

The sale area was included in the DOF's Mat-Su Southwest Area and Kenai-Kodiak Area Five Year Schedule of Timber Sales, 2007-2011. The Schedule was published in July 2007 and noticed for public comment in the *Frontiersman* and the *Anchorage Daily News* on July 17. The notice was posted in all Mat-Su post offices and on the State of Alaska Public Notice and the DOF web sites. The notice was also sent to agencies, Mat-Su community councils, tribal councils, Native corporations, planning commissions, Legislative offices, conservation groups, small mill operators, timber industry representatives, and private citizens. The schedule and maps are available for download from the DOF's web site. Public comments were accepted until August 16, 2007, but comments received after August 16 are kept in the file. Thirty-three comments were received. These public comments were used to identify issues that would be addressed in the Forest Land Use Plans.

4. Finally, the Forest Land Use Plan (FLUP) is prepared. The FLUP presents detailed information on the location, access, harvest methods, duration, and proposed reforestation for each sale. The public is asked to comment at this stage, as well. By getting the best available data, combined with a series of public processes that helps us gather information from the public and other agencies, we make well-informed decisions about uses of resources on state land.

F. Objectives

1. **Meet mandate.** To follow one of DNR's mandates to encourage the development of the state's renewable resources, making them available for maximum use consistent with the public interest. Sustain and promote a healthy, long-term timber industry in the state, by providing a secure source of timber for harvest that produces raw materials for local manufacturing plants when practical while protecting other resources such as fish and wildlife.
2. **Economic benefits.** To help the state's and borough's economies by providing royalties to the state from stumpage receipts, and adding to the state's economy through wages, purchases, jobs and business.
3. **Proactive forest management.** To improve forest growth and vigor by harvesting and replacing mature birch stands with new healthy stands of regrowth, while protecting and maintaining other resource values. The actions authorized under this decision will adhere to multiple-use management.
4. **Habitat objectives.** To provide a mosaic of forest stand ages for the variety of wildlife species that live in the area, including some early-successional stages.

II. LEGAL AUTHORITY

The Division is taking this action under the authority of AS 38.05.035(e) (Best Interest Finding); AS 38.05.110-120; 11 AAC 71 (Timber Sale Statutes and Regulations); AS 41.17.010-.950 and 11 AAC 95 (Forest Resources and Practices Statutes and Regulations).

III. ADMINISTRATIVE RECORD

The DOF will maintain an administrative record regarding the decision of whether or not to offer timber within the 2008 Willer-Kash Timber Sale Area. This record will be maintained at the Mat-Su Area Office.

IV. DISCUSSION OF ISSUES

A. Physical characteristics of the sale area

1. Topography. This proposed sale is situated on uplands approximately 600-700 feet above sea level. The terrain varies from flat to rolling hills with some short 40 to 60 percent slopes. There are no known natural hazards occurring in this area.

2. Water bodies. The *Atlas to the Catalog of Waters Important for Spawning, Rearing, and Migration of Anadromous Fishes* was used as a reference guide to indicate the potential for fish habitat issues in the timber sale area. Cataloged Stream 247-41-10200-2120-3043 (Type II-C), a tributary of Willow Creek, flows to the south and west of the sale area. Another stream (Type II-D), flowing out of a large muskeg north of the sale area, flows into the aforementioned stream. It is not cataloged but salmon fry were observed during a joint DOF/ADG&G field inspection and it will be protected as required as an anadromous stream. Additionally a stream management reserve area of 300 feet from ordinary high water on each side of this uncataloged anadromous fish stream was designed into the harvest units to meet the requirements of the *SFG*. The topography of the sale units is generally composed of elevated sections of ground relative to the areas directly adjacent to the cataloged stream and its tributary. No other streams were observed adjacent or within the harvest area.

The FRPA was amended in the summer of 2006 to apply new riparian standards to streams in Southcentral Alaska (Region II). The streams in the sale area fall into the II-C and II-D classifications.

- Type II-C water bodies are anadromous or high-value resident fish streams with:
 - Confined reaches of non-glacial waters >3' wide.
 - Unconfined reaches of glacial waters >3' wide and <50' wide
 - Lakes
 - Kenai, Kasilof, and Lake Fork Crescent Rivers.
- Type II-D waterbodies are anadromous or high-value resident fish streams that are less than or equal to 3 feet wide.

For state land along water bodies classified as Type II-C, harvest of timber may not be undertaken within 100 feet of the water body. For state land along Type II-D water bodies, there is a 100-foot riparian area; harvest of timber may not be undertaken within 50 feet of the water body. Between 50 feet and 100 feet from a Type II-D

water body, harvest may occur, but shall not create flow paths or ruts that could channelize sheet flow or introduce sediment into the water body. In addition, along both Type II-C and II-D streams on State land, there is a special management zone from 100 feet to 300 feet. Timber harvest in this zone must be consistent with the maintenance or enhancement of important wildlife habitat, as determined by the Office of Habitat Management and Permitting. In addition, the DOF buffers all streams with connectivity to cataloged streams per the Alaska Forest Resources Practices Act (FRPA) unless the ADF&G's Habitat Division indicated the stream is a non-fish-bearing drainage.

The timber sales in the plan area are anticipated to have a minimal impact on water quality, due to the location of the units and the topography in relation to the significant surface water bodies. The topography within the units is generally rolling with short steeper pitches of elevation loss to adjacent low lying areas that are typically muskeg or are wet areas growing black spruce. The sale area presents no obstacles that would prevent implementation of the best management practices of the FRPA for maintaining the water quality of all drainages in the sale area during proposed operations. The DOF will mandate best management practices of the FRPA to maintain the water quality of the drainages in the sale area.

3. Stand Conditions. The stand type predominant in the sale area is a result of wildfires that burned through the area approximately 80 years ago. The type originated after the wildfires and predominates in the lower elevations to about 850 feet elevation. This type consists of even-aged paper birch 70 to 80 years of age, with scattered uneven-aged white spruce varying in age from seedlings to mature trees approximately 80 years of age. Stand density for this type is approximately 200 to 250 merchantable trees/acre. Merchantable birch range from 6 to 14" diameter at breast height (dbh) with an estimated average of 8 inches. The average birch volume per acre in this type is approximately 8 to 9 cunits per acre. White spruce timber volume per acre is estimated at less than 200 board feet per acre.

The timber in this type is approaching maturity for birch saw timber. All units are fully stocked and mature, and would also be able to supply timber for a fiber, chip, or fuel wood sale. Generally the units are closed canopy with little undergrowth. Few indicators of disease or insect problems are evident at this stage of development

There is an endemic population of spruce bark beetle in the area, but there has been no spruce bark beetle infestation, and little mortality has been noted in the sale area.

It can be expected that within the next 20 years these units will begin to thin, succumbing to attacks from fungi and insects, and to the effects of snow load and wind damage. Further maturing of these stands will result in significantly accelerated defect. Experience has shown that additional growth will not produce a useful net increase in volume for the stand.

The understory vegetation is composed mainly of dwarf dogwood (bunch berry), club

moss, high bush and low bush cranberry. The type contains occasional grass, menzesia, alder, willow, rose, blueberry, and devils club.

In 1989, a 40 acre area 3.25 miles north of the proposed harvest area was harvested by the Department of Fish and Game to create moose habitat with the intent to encourage new hardwood growth for use by moose as browse. Another site treated by ADF&G to enhance moose habitat is only 330 feet southwest of Unit 185. The results of recent reforestation surveys for both sites show over 1,500 seedlings per acre for each site and more than meets the FRPA reforestation standards of 450 seedlings per acre. The sites are generally over-browsed by moose and the trees have had difficulty growing past the browse line. The added acreage of this sale, along with other planned sales, will distribute browse potential over a wider area and will likely allow better stand development than what is presently exhibited in the area treated by ADFG.

4. Silvics of birch trees. White or Paper Birch (*Betula papyrifera*) is a medium-sized, fast-growing tree that grows best on well-drained, cool, moist soils (Safford, 1990). Birch can grow on drier or wetter sites but will not achieve the growth rates found on more optimal sites. Birch is considered a short-lived tree, and matures at 60 to 70 years old. It rarely lives longer than 140 to 200 years.

Four decay causing pathogens have been identified in the paper birch: *Phellinus ignirius*, *Poria obliqua*, *Armillaria* *sop.*, and *Pholiota* *spp.* Surveys of these pathogens were conducted in Southcentral Alaska from 1996 to 2001. In general, the amount of stem, butt, and root decay was low in stands less than 50 years of age. Moderate decay was apparent in approximately half the trees in stands over 70 years of age, while nearly every tree contained extensive decay in stands over 100 years of age.

Birch commonly colonizes disturbed sites found after logging, fires, and windstorms. Scarification techniques are used to mimic or augment these disturbances and ensure adequate stocking levels to meet management and regulatory goals.

White birch normally produces seed at about age 15, with the optimum seed producing age between 40 to 70 years old (Safford, 1990). Birches produce seed every year and produce abundant seed crops every two to three years. Seeds are light, small, winged and average 1.4 million seeds per pound (Safford, 1990). Because of their size, seeds are easily dispersed by the wind and across the snow. Seeds are dispersed throughout the fall and winter with the majority of seed falling during the fall months.

Mineral soil provides the best moisture and temperature medium for the establishment and early growth of seedlings (Safford, 1983). Provided that the organic material is preserved, treatments such as scarification, disking, and light burning help provide the best seedbeds for establishing white birch (Safford, 1983).

In Zasada's (1978) study of Alaskan birch regeneration, scarified sites three years after clearcutting regenerated abundantly, with 700,000 seedlings per acre. Unscarified seedbeds showed less consistent stocking, with only 20,000 seedlings per acre. The

seedlings in the scarified sites averaged 11 inches in height while the untreated sites averaged 2 inches (Zasada, 1977). The data is not consistent with other findings in the northeast which showed birch germinated better on scarified sites but grew better on the untreated sites. The difference has been suggested to be due to competition of herbaceous and other vegetation on the untreated sites in Alaska (Safford, 1990).

Bluejoint reedgrass (*Calamagrostis canadensis*) in Southcentral Alaska is a serious competitor of both spruce and birch regeneration. Its rhizomes and seeds quickly colonize sites. The grass robs seedlings of needed nutrients and light. The dead grass also will smother the seedlings, and with the winter snows, may break or severely damage the young, weak plants. Scarification retards grass colonization and allows the seedlings to become established and compete with the grass.

Collins, in his study of 96 selectively cut and clearcut sites, found that clearcuts were much more successful than selectively harvested timber in limiting the growth of bluejoint reedgrass. Grass cover was greatly increased in selectively cut sites, which limited hardwood growth to areas where the overstory was relatively open and mineral soil was present, for example, upturned rootwads or haul roads. Collins' survey found that complete or nearly complete overstory removal, followed by scarification, were most favorable to the establishment of early successional hardwood forest.

B. Current Land Use

Land located 0.5 miles to the south of the timber sale area is owned by the Matanuska-Susitna Borough and by several private landowners. Private lands lie 1.0 mile west of the sale area. The Willow Mountain Critical Habitat Area is located 1.5 miles east. This critical habitat area was created by the Alaska Legislature to protect fish and wildlife habitat and to provide opportunities for hunting, trapping, and recreation.

Directly South of the sale area, the Willow Creek Mountain Trail runs east from the Willer-Kash Road to the Willow Mountain Critical Habitat Area. As required by the Kashwitna Management Plan and the Susitna Forestry Guidelines, the trail has been given a 150 foot buffer between it and the harvest units.

A proposed recreational site, the Willow Creek Mountain Recreation Site, is approximately 500 feet from the nearest harvest unit.

The Willer-Kash Road easement runs north-south through the sale area and has been used as a logging road for DOF and Borough timber sales in the past.

C. Wildlife habitat

Numerous wildlife species are present within the planning area. These species include: moose, black and brown bear, spruce grouse and ruffed grouse, ptarmigan, fur-bearing animals, and various birds. Unit size, shape, and position were designed to consider the needs of wildlife common to the area. Division of Forestry staff worked with staff from the Alaska Department of Fish and Game (ADFG) to design harvests that will benefit wildlife. Units comply with design considerations specified in the *SFG* for wildlife. Silvicultural methods were designed to regenerate cut units to vigorously growing forests.

Clumped snags will be retained to provide wildlife habitat for cavity-nesting birds, woodpeckers, small mammals, and other species requiring perching habitat. Residual shrub communities such as alder, devil's club, and vigorously growing young willow will be retained for wildlife habitat and protected from scarification.

Birch, the primary species present within this timber harvest area, is important not only for the timber industry, but also as browse for mammals such as beaver, moose, snowshoe hares and porcupines. These herbivores are not only dependent on young hardwoods (early successional stage) for food, but the animals themselves are, in turn, major food sources for predators (Collins, 1996).

In Southcentral Alaska, the most significant factor promoting the maintenance of early successional vegetation has been fire. Fire suppression for the last few decades has severely reduced this mode of hardwood production, and as a result, has changed the diversity and productivity of the boreal habitats and their wildlife (Collins, 1996). Reduction of overstory and ground covers by logging or land clearing can mimic the natural disturbances which stimulate hardwood growth (Collins, 1996), providing more browse to wood-eating mammals.

By mimicking the fire regime of the past, the harvest will create more forest diversity, leaving an older, late successional forest with 15 to 45 acre cuts dispersed throughout the area. The early successional wildlife species such as moose will benefit from the disturbance and subsequent browse, while buffers and leave areas will continue to support species adapted to the late successional forest types. Buffers will also act as travel corridors and provide cover for wildlife (Collins, ADFG, pers. comm.).

Scarification will be performed in each of the 5 timber sale units to promote the germination and growth of hardwoods, including birch, aspen, and willow. Scarification means exposing mineral soil to promote the germination and growth of hardwoods. (For more information about scarification, see the following sections of this document: A.4. Silvics of birch trees and J. Regeneration.) Moose browse will be improved by regenerating hardwoods as a result of the mechanical scarification required as part of this timber sale. It is anticipated that this timber harvest and site preparation project will provide approximately 170 acres of accessible moose browse in the form of regenerating hardwood forest vegetation. The regenerating hardwoods will provide moose browse until they grow up beyond the ability of moose to successfully reach it.

Units were designed and laid out with uneven edges to benefit wildlife, taking into account topography and merchantable timber. As mandated by the *Susitna Forestry Guidelines*, no harvest will take place within 100 feet of Class I and II wetlands (wetlands larger than 40 acres). See section K. Harvest Methods for specifics on the timber harvest.

The timber acreage planned for harvest is located only in Subunit b of the *Kashwitna Management Plan*. The total area of state land in the entire Kashwitna planning area is 29,550 acres. Of that total, 81 percent (23,930 acres) is forested and is shown as estimated timber base in the Kashwitna area. This timber sale plan proposes to harvest less than 1% (170 acres) of the timbered acres in the Kashwitna planning area. However, other timber sales have

occurred in the past in the area, and more are planned for the future. Harvesting activities may cause a temporary displacement of some individual wildlife species. However, the sale, with its 330 foot leave strips, stream and wetland buffers, and adjacent Willow Mountain Critical Habitat Area, is not expected to cause significant negative impacts on the wildlife populations in the area.

As required by the Kashwitna Management Plan, the Willer-Kash Road has a 330-foot buffer zone from each edge of the road's right-of-way and a 170 foot management zone extending out from the buffer zone. The purpose of the buffer zone is to provide wildlife cover and recreational opportunities and to protect visual quality along the road. The purpose of the management zone is to provide additional wildlife cover and public use. Vegetation management (including timber harvest) within these zones may only be undertaken with the consultation of the DNR Division of Parks and ADFG.

Species of concern

DOF consulted the Alaska Division of Wildlife Conservation's endangered and threatened species list. None of those species have ranges that are included in the sale area. The Division of Wildlife Conservation does list the following species as "species of special concern," however:

- Northern Goshawk
- American and Arctic Peregrine Falcon
- Spectacled Eider
- Steller's Eider
- Aleutian Canada Goose
- Olive-sided Flycatcher
- Gray-cheeked thrush
- Townsend's warbler
- Blackpoll warbler
- Brown Bear, Kenai Peninsula population
- Steller Sea Lion
- Harbor seal
- Beluga whale Cook Inlet population
- Bowhead whale
- Sea Otters
- Chinook salmon, Snake River population

Four Species of Special Concern have ranges which include the sale area. Peregrine Falcons nest throughout interior Alaska, especially on cliffs along rivers and near lakes. The use of DDT was the single largest contributor to the decline of these two species. The reduction in use of DDT and the protection of nesting sites has resulted in a population rebound. This sale area does not have optimal nesting sites and should not significantly impact peregrines. Should nests be found in the sale area, ADFG biologists will be advised, and DOF will implement any protective measures that may be required.

The Olive-sided Flycatcher also has a summer range overlapping the sale area. This migratory bird nests in coniferous forests and is associated with open areas within the forest including logged areas. Biologists are mostly concerned with the dwindling winter habitat in the Andean valleys of South America. The sale area is predominately a birch forest and would therefore not be prime habitat for these species and, if observed, would be incidental.

Like the flycatcher, the Gray-cheeked thrush and the Townsend's and Blackpoll warblers are migratory species commonly found in coniferous forests. The sale area is predominately a birch forest and would therefore not be prime habitat for these species.

Moose

The riparian area along Little Willow Creek, 5.5 miles north of the sale area, is heavily used by moose as a wintering area and as a migration corridor during the spring and fall. Radio collar data indicates that not only moose from Willow Mountain use the area but also moose from as far away as the west side of the Susitna River. As noted in the Kashwitna Management Plan, the adjacent Willow Mountain Critical Habitat Area supports a high-density moose population.

The *SFG* identifies moose winter concentration areas as important to consider when planning harvesting schedules, and states that ADFG must identify those areas before a timber sale is offered. ADFG's Wildlife Conservation Division confirmed that the mature birch forests planned for harvest are not the ideal habitat for wintering moose. Birch stands provide little thermal cover for moose, and older birch stands provide little browse. By scarifying the harvested sites and promoting birch regeneration, the timber harvest will provide the much-needed browse currently lacking in the older stands. Spruce, both white and black, provide much better thermal cover and are more likely to be found in the adjacent riparian and wetland buffers that will not be harvested. Wetland buffers also are a source of willow browse. The mosaic of regenerating birch browse, adjacent leave areas between harvest units, and the riparian and wetland buffers will create much better conditions for wintering moose than the conditions that currently exist.

The ADFG's Division of Wildlife Conservation, in their 2006 Moose Management Report, states that there was a large decline in the moose population within Unit 14B during the severe winter of 1999-2000. The report concludes that it is unlikely the moose harvest objective of 100 to 200 moose will be reached unless access opportunities improve or the moose population increases. The Division of Wildlife Conservation has stated that a timber sale in this area will allow better moose browse, improving the quality of moose habitat.

Marten

The *SFG* notes marten habitat as important to consider, and in areas that ADFG identifies as having important marten populations, slash piles that will protrude through the snow are to be left on the ground. However, the older birch forest in the sale area is not the type of habitat frequently used by marten. According to the ADFG's Division of Wildlife Conservation, coniferous forests are better suited for marten habitat.

Eagles

Based on existing U.S. Fish and Wildlife Service eagle nest tree maps and field observations, there are no known eagle nest trees in the sale area. Should an eagle nest tree be discovered in the sale area, DOF will notify the U.S. Fish and Wildlife Service with the location of the nest tree. The eagle nest tree will be marked on the ground and a 330 foot no-harvest radius will be established to protect the nest tree.

Hunting

Hunting pressure in the immediate area may increase as a result of easier access, and higher moose densities because of the added browse. The added hunting pressure is not expected to be significant relative to the extent of hunting opportunity in the Valley. The Alaska Department of Fish and Game is responsible for setting hunting regulations, including restricting hunting areas.

D. Fisheries and water quality

The *Atlas to the Catalog of Waters Important for Spawning, Rearing, and Migration of Anadromous Fishes* was used as a reference guide to indicate the potential for fish habitat issues in the timber sale area. Only one stream, catalog number 247-41-10200-2120-3043, a tributary of Willow Creek, flows to the south and west of the sale area. The stream is cataloged as supporting rearing coho.

One additional stream not cataloged as supporting anadromous fish by ADFG is likely to have fish present and will be treated as such. The stream flows out of a muskeg north of the sale area and into Stream 247-41-10200-2120-3043.

Best management practices will be implemented to ensure water quality standards are met in all water courses. Within 300 feet of cataloged anadromous fish streams, and the riparian standards in the Forest Resources and Practices Act will be followed to protect fish habitat and water quality (See A. 2. Water bodies, for specific guidelines.).

Some harvest units within the sale area will be logged during the winter during times of good ground support (frozen or covered with snow). The winter conditions will practically eliminate sediment accumulation and transport potential during operations. Due to the varied topography of the sale area, any turbidity generated by the operations will generally settle out within the units or adjacent to the sale area during the spring thaw, and will not enter the streams.

The sale area has been designed and operations will be conducted in compliance with the *SFG* and FRPA and its regulations, which protect water quality and fish habitat from degradation.

Information from field inspections, compliance monitoring, and the state ACWA (Alaska Clean Water Actions) database indicate that the FRPA is effective in protecting water quality. The annual report from the Department of Environmental Conservation (DEC) on the effectiveness of FRPA concluded that, “when properly implemented, the BMPs are effective at protecting water quality.” No streams have been identified or listed for violation of water quality standards as a result of forest operations subject to the FRPA best management practices.

The Division of Forestry routinely monitors implementation of the best management practices established by the FRPA and its regulations. Compliance in Central Alaska is high—the overall score for compliance in 2003 to 2007 was 4.4 out of a possible score of 5.0 across a wide range of BMPs. When the division identifies BMPs for which implementation is inadequate, we address the problems through operator training and enforcement actions.

E. Subsistence

The timber sale area has not been designated as a subsistence zone. However, the following subsistence uses may occur on lands in state ownership: fishing, trapping, hunting and gathering of berries. This action is anticipated to have no significant deleterious effects on the above activities.

F. Recreation

Current recreational activities in the area are associated with hunting in the fall and spring, and snowmobiling and dog mushing in the winter. Numerous off-road vehicles (ORV) trails made by hunters crisscross the area. Many originate from the Willer-Kash Road and connect existing trails such as the Link and Central Trails. The closest site, the Willow Creek Mountain Recreation Site, is approximately 500 feet from the nearest harvest unit. The Willow Creek Mountain Trail and an unnamed tributary of Willow Creek separate the nearest unit from the recreational site.

The Willow Creek Mountain Trail, south of the sale area, has a minimum 150 foot buffer separating it from any harvest units as required by the *Kashwitna Management Plan* and the *Susitna Forestry Guidelines*. Minimal management activities such as clearing blown down trees may occur within these 300 foot corridors (150 feet from both sides of the trail centerline). Roads are allowed to cross the corridors but they should cross at 90 degrees to the trail wherever feasible.

The Willow Creek Mountain Recreation Site, is approximately 500 feet from the nearest harvest unit. Little impact to the site is anticipated as the Willow Creek Mountain Trail corridor and an unnamed tributary of Willow Creek separate the nearest unit from the recreational site.

The DOF has designed the individual units and chosen harvest methods that will create irregular patches of younger forest and enhance the diversity of the area. By so doing, this younger forest will enhance the habitat for early successional species such as grouse and moose and increase hunting opportunities.

The *Kashwitna Management Plan* anticipated the expansion of ORV use as a result of improved access and directs the DNR to establish a special use area. The intent of the special use area is to identify routes that can be used by ORVs year-round without causing environmental damage and routes that can only be used when winter conditions sufficiently protect vegetation. Public notification and comments will be required prior to the establishment of the special use area, and the area has not yet been established.

As directed by the *Kashwitna Management Plan*, secondary roads not designated as permanent roads will be closed to highway vehicular traffic after harvesting. However, DNR, in cooperation with ADFG and the Matanuska-Susitna Borough, may designate some secondary

roads to remain open for ORV trails as part of the Kashwitna Special Use Area, if it is created. Adequate funding will need to be allocated for the inspection and maintenance of these ORV trails. The winter roads over muskegs and wet soils, though, will not be capable of supporting sustained traffic by off-road vehicles during non-frozen ground conditions without causing degradation of the road bed. See section L., Transportation, for guidelines on road closure and ORVs.

The timber sales in the area are expected to result in no adverse long term changes to recreational or tourism use of the area. For safety reasons, harvest activities will temporarily restrict or modify some of the traditional access routes to the area while actual harvest operations are ongoing. The restrictions will be short in nature and be limited to the areas of operation. However, other areas within the sale area and adjacent state land will continue to be fully accessible.

G. Scenic resources

Visual impact from the sale will be nonexistent from the Parks Highway or the Willow-Fishhook Road (Hatcher Pass Road). The closest harvest unit will be over 7 miles from the Parks Highway and 0.9 mile away from the Willow-Fishhook Road. Furthermore, the harvest units were laid out with uneven edges to benefit wildlife, which will make the harvest areas look like natural muskegs and meadows from a distance.

The Willer-Kash Road was built by the DOF to access timber sales. The buffer zone described in Section IV. C. Wildlife Habitat, will provide a visual screen between the road and harvest areas. Additionally, the management zone, although not created for this purpose, will also act as a visual screen. In both zones, vegetation management (including timber harvest) may only be undertaken with the consultation of the DNR Division of Parks and ADFG.

The sale will be visible from the air. Again though, the harvest units were laid out with uneven edges to benefit wildlife, which will make the harvest areas look more natural from the air. Some negative effects may occur to the users of the Shirley Towne Drive and Willow-Fishhook Road during operations due to the added traffic on the road. However, the increased traffic will be short in duration.

Even after the harvest, there will be many forested acres left in the area. The total gross acreage of the sale area is 435 acres. Of that, 36 acres are wetlands and another 8 acres have been harvested for wildlife habitat; leaving 381 forested acres or 88 percent as forested lands. 170 acres or 45% of the forested acreage is proposed for harvest. 211 acres or 55% will remain after harvest operations are complete.

H. Cultural resources

The Office of History and Archaeology and the State Historic Preservation Office (SHPO) reviews each Five-Year Schedule of Timber Sales and each Forest Land Use Plan for possible impacts to cultural resources. There are no known cultural or historic sites within the sale area. Areas identified as historic, archaeological, or paleontological sites are protected as outlined in the Kashwitna Management Plan. During the course of activities associated with this timber sale, cultural and/or paleontological resources may be inadvertently discovered. Should such a

discovery occur, the site shall be protected from any disturbance, and DOF will contact SHPO and the Mat-Su Borough's Cultural Resources Specialist immediately so that compliance with state laws governing cultural resources may begin.

Under the Alaska Historic Preservation Act (41.35.200), all burials on state land are protected. If burials or human remains are found, all land-altering activities that would disturb the burial or remains shall cease and measures will be taken to protect it in place. The Office of History and Archaeology and a law enforcement officer will be notified immediately to ensure that proper procedures for dealing with human remains are followed.

I. Sustained yield and allowable cut

The Alaska Forest Resources and Practices Act [AS 41.17.060 (c)] and Article VIII Sec. 4 of the State Constitution require that state forest land be managed on a sustained yield basis.

Sustained yield is defined in the Alaska Forest Resources and Practices Act [AS 41.17.950(15)]:

"Sustained Yield" means the achievement and maintenance in perpetuity of a high level of annual or regular periodic output of the various renewable resources of forest land and water without significant impairment of the productivity of the land and water, but does not require that timber be harvested in a non-declining yield basis over a rotation period.

The Annual Allowable Cut (AAC) is the amount that can be harvested from forest land managed for forestry purposes in a year under a sustained yield management. The AAC in the Mat-Su Area is based on a five year average as mandated by the *SFG*. This sale complies with sustained yield/allowable cut principles outlined in the Mat-Su Southwest Area and Kenai-Kodiak Area Five Year Schedule of Timber Sales, 2007-2011. By law, the state must manage timber for sustained yield. The annual allowable cut that is sustainable in this area is set by the Susitna Forestry Guidelines at 880-930 thousand cubic feet (Mcf) per year. State harvests in any five-year period must be no greater than five times the annual allowable cut. Because sales in the last four years have been far below the annual allowable cut, the remaining allowable cut in FY08 is 3,542 to 3,792 thousand cubic feet. The proposed sales contain 161 thousand cubic feet, well within the allowable cut.

AS 41.17.060(c)(4) states that "timber harvesting is limited to areas where data and information demonstrate that natural or artificial reforestation techniques will result in the production of a sustained yield of merchantable timber from that area." The DOF is committed to reforestation and a sustained yield of timber, fish and wildlife. The existing forest, the quality of timber in the harvest unit within the proposed sale area, and results from past timber sales in the Susitna Valley indicate that the area is capable of regenerating and supporting a sustained yield of merchantable timber and fish and wildlife. Please see the Regeneration section, below, for information about how this harvest has been designed to ensure adequate regeneration.

J. Regeneration

Successful natural forest regeneration of birch requires full sunlight to reach the forest floor. Birch seedlings establish mainly by seedfall on mineral soil, and to a lesser degree, by stump

sprouting. Mineral soil significantly helps birch seed germination and seedling survival. Nearly full sunlight is needed to sustain growth and encourage successful birch stand establishment. Abundant birch seed is available every year or two.

Birch stands usually regenerate after wildfire kills the overstory of mature birch and spruce. Fire opens the site to nearly full sunlight, exposes mineral soil to seedfall from adjacent live birch, and allows birch stumps to sprout, where fire has killed off the above-ground tree but has not entirely killed the root system.

Regeneration of white spruce occurs only from seeds. White spruce trees generally produce some level of a seed crop every three to five years and large seed crops every five to seven years. White spruce seeds germinate best on dead and down decaying trees as well as on decaying stumps and on mineral soil. Site scarification that exposes mineral soil is generally very successful at producing an even-aged stand of white spruce. However, birch may reseed naturally in the scarified area, and may become the predominant forest stand tree for many years, since birch initially grows faster than white spruce. White spruce trees are shade tolerant and do not need full sunlight to grow. Over time, the combination of birch and spruce will result in the establishment and dominance of naturally occurring, uneven-aged white spruce trees in a stand. See section A.4. Silvics of birch trees, for more information on birch regeneration.

It is generally accepted that the nutritious parts of principal tree or tall shrub species grow out of reach of moose within 20 years. If not topped by browsing or other mechanical means, the critical height may be reached at 9 or 10 years of age (Collins, 1996). Because there will be enough acreage to spread the browsing out over a large area, no problems with overbrowsing are anticipated. Collins (1996) noted that the availability of browse may last for a shorter time if the tree's height growth is not retarded by browsing or other damage. He used the abandoned Point Mackenzie Agricultural Project as an example where the old fields reforested in hardwoods and produced excess browse relative to the moose population. The young hardwoods were lightly browsed and quickly outgrew the browse line. Collins and Schwartz, in their (1998) management recommendations, state that "to enhance early successional moose habitat in hardwood and spruce-hardwood stands in Alaska," increased regeneration of hardwood will "lessen the probability that individual hardwoods will be damaged or stunted by browsing."

Scarification will be done on the harvest units to the standards set in the *Susitna Forestry Guidelines* to ensure regeneration that meets the reforestation standards in the Alaska Forest Resources and Practices Regulations [11 AAC 95.375 - .390]. According to the *Susitna Forestry Guidelines*, mineral soil must be exposed on at least 50% of the harvested area. Areas should be scarified no later than two growing seasons following completion of harvest to minimize grass invasion. Mineral soil patches should be exposed uniformly over the harvested area to encourage uniform distribution of trees. Mineral soil patches should be as large as possible.

K. Harvest methods

Harvest units. The sale area consists of 5 cutting units, with an average size of 34 acres. Unit sizes range from 16 to 45 acres. The proposed units have been properly buffered between

themselves with 330 foot no-cut areas as required by the *SFG*. The *SFG* also limits cutting openings: “Cutting openings generally shall be no wider than approximately 660 feet to allow access to cover for bears and moose and to encourage full utilization of browse.” Harvest areas wider than 660 feet will be mitigated with residual islands of dense cover, as required in the *SFG*. The DOF will mark residual islands of cover in these units prior to the harvest of the timber. Harvest methods will follow the guidelines in the *SFG* and the Forest Resources and Practices Act and Regulations.

1. Method of harvest

The *SFG* recommends the seed-tree method of harvest for birch stands, but does not require that method. The harvest planned for the Copper Timber Sale, while similar in some ways to a seed-tree harvest, does not fit the precise definition, because it has been tailored specifically for the area, taking into consideration the tree species, the wildlife enhancement opportunities, and the reforestation requirements of the area. The *SFG* definition for a seed-tree harvest is:

“A harvesting system in which most trees are removed from a stand and openings are created. Openings are similar in size to clearcuts but about 5-10 of the best mature trees are left standing on each acre to provide a good seed source for forest regeneration.”

Rather than leaving “5-10 of the best mature trees” on each acre, all of the birch trees less than six inches dbh and the snags (approximately two per acre for wildlife use) will be left standing, and will be protected from damage during harvest operations. Aspen and willow in the units will be cut incidental to the timber harvest to encourage prolific regeneration from root and stump sprouts for moose browse.

A mature tree, for the purposes of regeneration, is a tree that is capable of producing seed. Birch trees from 4 to 6 inches dbh are mature trees. White birch normally produces seed at about age 15, with the optimum seed producing age between 40 to 70 years old (Safford *et al.*, 1990). White birch in the 4- and 5-inch size classes fall within the optimum seed-producing range of ages, especially when growing within an older and taller stand. According to estimates done during the layout and reconnaissance of the area, the birch trees less than six inches dbh will number approximately 5-10 mature seed-producing trees on each acre, so the outcome will be very similar to the seed-tree system, although the method is slightly different; the trees left will be selected by size, rather than by location.

The point of leaving residual trees, whether by selecting 5-10 trees per acre, or by leaving trees smaller than six inches, is to provide a good seed source for forest regeneration. The mature trees left as residuals in the harvest units will provide seed sources, but another seed source will be the seed-bearing trees in the adjacent buffers and leave strips. Each harvest unit is small (less than 50 acres of trees cut in each unit), so the undisturbed surrounding trees will provide abundant seeds to the harvested areas.

2. Falling. Mechanical falling with feller bunchers will be used to harvest timber in each unit. Rubber tired and tracked grapple skidders, line skidders, delimiters, forwarders, and dozers will be employed to forward timber to landing areas for processing by a chipper.

3. Slash. Limbs and tops will be severed and scattered to decompose in the unit. If burning is utilized to dispose of slash, an open-burning permit would be required from DEC to ensure dispersal of airborne emissions. Some burning may be proposed for slash disposal by the purchaser in the operating plan. No broadcast burning will be done, but if piling and burning is planned, DOF will notify landowners within one mile of the sale area, as well as the local community councils, 30 days prior to the burn.

4. Hours of operation. Due to the remote location of the timber sale, no limits will be placed on the hours of operation of the actual harvesting and processing activities. Hauling activities will be controlled by the State through the timber sale contract. The State will base approval of the hauling schedule on the traffic activity encountered on the Shirley-Towne and Jim Carter Roads during the operational periods proposed by the purchaser.

5. Invasive species. Because of the potential of heavy timber harvest equipment to spread invasive species' seeds, before timber harvesting equipment enters the harvest area, it will be power-washed to remove possible invasive species seeds. This guideline applies to timber harvest equipment, not trucks hauling logs and/or chips.

Scarification can also transport invasive plants' seeds. Scarification equipment will be power-washed before going on-site. In addition, the parking area at the intersection of Willer-Kash and Jim Carter Roads will be checked before scarification equipment is brought into the timber harvest area in the summer, to see if there is an infestation of invasive species along the highway at the entrance to the timber sale. If there is, the infestation will be treated prior to the scarification work being done. Because the closest unit to a major road is 0.9 miles away, there is little danger that invasive seed from the Willow-Fishhook Road will be blown into the scarified areas.

6. Wood residue for personal use. Because chipping operations use most of the wood, there is not likely to be wood residue in the sale area available for personal use.

L. Transportation

The main access route to this timber sale area is via the Willow-Fishhook Road for approximately 5.5 miles east from the Parks Highway, then north over Willow Creek on the Shirley Towne Drive for 0.3 miles, and finally east on the Willer-Kash Road for 0.4 miles to the intersection with the Jim Carter Road. From this intersection, the Willer-Kash Road is not maintained and continues for approximately 1.7 miles north on borough lands, then another 4.9 miles north on state lands. The road was originally built by the DOF for access to timber sales.

The DOF will limit hours of trucking to avoid times when school buses are present on the Shirley Towne and Jim Carter Roads. The timber sale contract will specifically stipulate that operations will take school bus traffic into account and limit chip or log truck traffic to times that buses do not traffic these secondary roads. Signs will also be posted on the road during the duration of the timber sale to advise the public of the added traffic on the road.

Approximately 1 mile of secondary single lane roads with turnouts will be constructed as part of this timber sale. The roads were designed to avoid sensitive vegetative cover types such as riparian zones, wetlands, ponds, and naturally occurring forest openings wherever practical. OHMP has been consulted on the sale location and design. Access to the proposed harvest units did not require any new stream crossings. The existing portions of the 200 and 210 Roads need to be brought up to meet the FRPA standards. All roads used to access the sale will be maintained to the standards set out in the FRPA and the *SFG*. Specific maintenance requirements for the roads during timber harvest operations will be incorporated into the timber sale contract. The purchaser will be responsible for entering into road use agreements as necessary to maintain existing road conditions of the Willer-Kash Road and Shirley Towne Drive during harvest operations and adequately manage the increased traffic caused by timber operations.

The area proposed for timber harvest is already used heavily by off-road vehicles (ORVs), as evidenced by the many trails throughout the sale area. The people using the area for ORVs generally park in the parking lot at the intersection of the Willer-Kash and Jim Carter Roads and access the area using the Willer-Kash Road, the Willow Creek Mountain, Central and Link Trails, and through the wetlands, even in non-winter months. Using ORVs on state land does not require a permit; it is a generally allowed use, as long as the vehicles do not break through the vegetated mat.

After the harvest activities are complete, the secondary roads will be closed according to Alaska Forest Resources and Practices standards (11 AAC 95.320):

- Roads and ditches will be left in a condition that will control erosion.
- In areas accessible to highway vehicles, the road is blocked so that a four-wheeled highway vehicle cannot easily pass the point of blockage.
- Bridges, culverts, and fills are removed from surface waters.

In the event secondary roads are designated as ORV trails as part of the Kashwitna Special Use Area, the *Kashwitna Management Plan* requires the following:

- The roads will require berms, cables, gates, or other methods to restrict highway vehicles from using the road.
- Roads remaining open for ORV use should follow well drained routes whenever possible.
- Drainage structures should be inspected and maintained as long as the roads are open to ORV use.
- If organic soil is removed during construction, exposed gravel or mineral soil may be left on the surface to support ORV use rather than replacing the overburden.

M. Erosion

There are two types of soil erosion concerns: surface erosion and mass wasting of soil and debris. Road construction and poor maintenance of roads primarily causes surface erosion. For economic and environmental reasons the amount of road construction has been minimized, and none of the roads are on steep slopes. The roads have been designed to follow the natural contours and benches in the area and most are located on flat or moderate slopes of less than 50 percent. The roads were kept off steeper slopes and located on flat benches to not only minimize soil erosion from road construction, but also to minimize erosion due to logging. The location of the roads optimizes skidding distance and will provide adequate landing areas.

The Alaska Resources and Practices Regulations slope stability standards and its ground skidding BMPs will be adhered to at all times, as will the BMPs for all-weather and winter road construction. The FRPA will be implemented to protect the current hydrologic pattern. This will include, but not be limited to, vegetative or other stabilization of exposed soils, proper road maintenance and road closure at the end of the season. DOF's timber sale forester will ensure, with frequent field inspections, compliance with the timber sale contract and the FRPA. Proper road maintenance on active, inactive, and closed roads will be followed.

The other aspect of erosion (mass wasting and debris avalanches) normally occurs on slopes of more than 70 percent. The DOF has determined that the mass wasting potential is nonexistent because slopes are generally mild and timber harvest areas are not on slopes greater than 67 percent. Harvesting will be suspended during periods of thawing soil conditions to assure there is minimal soil disturbance.

N. Mining

There is little known current mining activity in this area. Other than providing access and sharing some of the same access roads, this sale will have no impact on the potential mining resources or mining activity in this area.

O. Materials

Much of the gravel needed for road construction will be acquired from the road right-of way. In the event that gravel sites are developed along the Willer-Kash Road, the sites will be contoured to a natural appearance or converted to a parking area. The DNR Division of Mining, Land, and Water will be notified if additional material is required outside the right-of-way and, if necessary, permits will be secured. Material sites will be screened from the Willer-Kash Road. Some water will be potentially required for surfacing of winter roads. The purchaser will be required to obtain the necessary permits to withdraw water from stream sources in the sale area if that is considered an operational necessity during the preoperational meeting or timber sale administration. The quantity required is not anticipated to be significant.

P. Economics

In addition to generating royalties to the state's general fund, the proposed sale will create economic benefits to the Matanuska-Susitna Borough and to other locations in Alaska. The borough business community will receive direct economic benefits from providing support services for the operators through sales of fuel, food, housing, medical and miscellaneous

supplies. The residents of the borough will receive an indirect benefit through property taxes paid to the borough by the operator and employees during the course of the timber harvest operation.

The sale is expected to benefit the local economy by providing jobs. This timber sale will have a positive impact on statewide employment by generating at minimum an estimated 4,300 man-hours of work directly associated with the harvest and wood processing operations in this sale.

Additional impacts could be creating additional access for the public and providing moose browse for increased subsistence and hunting opportunities that would attract people to the local communities where they would purchase goods and services.

V. MARKET CONDITIONS

The continued interest in Alaska birch chips by Asian companies and in biofuels has the potential to provide opportunities to new and existing businesses. The deep-water port at Point Mackenzie provides a shipping facility with the equipment to directly load wood chips or other products onto ships for shipment to markets in the lower 48 or to Asia.

The increase in oil prices during the last few years has created interest in biofuels including the increased demand for wood based fuels. Pellet stoves are being sold all over Alaska and are currently using pellets manufactured outside. Two firms in the interior are setting up pellet mills and plan on producing pellets in the near future to meet this demand while efficient wood chip fired boilers are planned for heating schools and other public buildings in Tok, Delta, and Talkeetna. Commercial firewood firms are also ramping up operations because of the need to fill customer orders. This demand for fuel is expected to increase as more and more people and organizations move away from conventional oil based fuels and towards sustainable biofuels.

This increased demand for lower quality wood should have a positive impact on the ability of local mills to economically access higher quality timber they require to meet local manufacturing and raw lumber demands. The purchaser of a timber sale can sort higher quality logs coming to a landing, sell the sawlogs to a local mill and then process the remainder for firewood, chips, or other biofuels.

To help stabilize the local wood products industry, the DOF has been directed by the Governor and Legislature to make a consistent and sustainable timber supply available to the markets.

Small sales prepared in the last two years have all been sold to small operators. Operators have voiced significant interest in purchasing sales of this size and bigger to help them meet the growing demand for firewood. The DOF has also seen this growing demand for alternate fuels expressed by the sharp increase in requests for personal-use firewood permits not only in the Mat-Su valley but in all our area offices. This proposed FLUP provides the DOF with the flexibility to configure sales to adapt to the growing demand by having the option to sell these harvest units as several individual sales or in various combinations as larger sales.

Upon the final decision of the director, the proposed sale(s) will be publicly advertised for sale as one sale or as several smaller sales according to the provisions of AS 38.05.120 ([Competitive] Disposal Procedure). If no qualified bid is received within the time specified for the sale, the Division of Forestry may offer the sales for purchase over-the-counter for not less than the appraised and advertised

minimum bid without further public notice.

VI. ALTERNATIVE ACTIONS

There are four possible alternatives to consider for this sale. A discussion of each of the four alternatives follows:

1. **To continue the sale(s) as proposed.** This alternative meets the objectives of the Five-Year Schedule of Timber Sales and one of DNR's mandates to make the state's renewable resources available for public use. It also meets the silvicultural objective of improving forest vigor, provides for a secure source of timber for the industry and creates additional jobs in Alaska due to the combination of road building, logging, and trucking. This alternative also complies with the management intent of the *Kashwitna Management Plan*, which is to retain the area in public ownership and manage it to provide timber for commercial and personal use, maintain and enhance moose habitat, and provide opportunities for public use.
2. **To modify the sale(s) by making them smaller or larger.** This plan consists of 5 units. The size of the typical unit is designed to be large enough to be economically viable for mechanical logging methods. Increasing the unit size would not be adhering to the *SFG*. Decreasing the size of the units would increase logging costs or leave timber that would be more difficult to harvest in the future. This sale is appropriately balanced to maintain other resource values as well as provide economic benefits to the Mat-Su Valley.
3. **Defer the sale of this timber to a later date.** Deferring harvest to a later date would fail to meet many of the objectives of the sale program. One of the main objectives is to try and make state-owned timber consistently available to the timber industry.
4. **Not offer this timber for sale.** This alternative would result in not meeting any of the objectives outlined for this management action. Utilization of the forest resource would not be achieved. There would be no significant contribution to the state and local economies. This alternative would delay the management objectives planned for the area, would deny making a source of raw materials available to the local wood products industry, and would delay the harvest of dead trees, mature trees, disease infected trees, and trees at risk to insect infestation. Decay in infected and infested mature spruce and birch trees results in loss of economic value.

VII. ACMP CONSISTENCY ANALYSIS

This area is not within the Matanuska-Susitna Borough's District Coastal Management Plan and therefore a consistency review is not required.

VIII. PRELIMINARY FINDING AND DECISION

The purpose of this decision is to determine if the Department of Natural Resources, Division of Forestry, will make available timber located in Sections 20, 21, 28, and 29, T20N, R3W in the Seward Meridian.

After due consideration of all pertinent information and alternatives, I have reached the following Preliminary Decision: **To offer the sale as proposed.**

In addition, I find that this preliminary decision satisfies the objectives as stated in this document and that it is in the best interest of the state to proceed with this action.

Ken Bullman
Mat-Su Area Forester

Date

Abbreviations

ADFG: Alaska Department of Fish and Game
BMPs: Best Management Practices
DBH: diameter at breast height
DPOR: Division of Parks and Outdoor Recreation
DEC: Department of Environmental Conservation
DNR: Department of Natural Resources
DOF: Division of Forestry
FF: Final Finding (Forest Land Use Plan)
FLUP: Forest Land Use Plan
FRPA: Alaska Forest Resources and Practices Act
FYSTS: Five Year Schedule of Timber Sales
DOH: Division of Habitat
ORV: off-road vehicle
PD: Preliminary Decision (Forest Land Use Plan)
SHPO: State Historic Preservation Office
SFG: Susitna Forestry Guidelines

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Links to Planning Documents:

Willow Sub-Basin Area Plan: <http://www.dnr.state.ak.us/mlw/planning/areaplans/willow/index.cfm>

Kashwitna Management Plan: <http://www.dnr.state.ak.us/mlw/planning/mgtplans/kashwitna/index.htm>

Susitna Forestry Guidelines:

http://www.dnr.state.ak.us/mlw/planning/mgtplans/susitna_forestry_guidelines/index.htm

TITLE 11. NATURAL RESOURCES.

CHAPTER 02. APPEALS.

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11 AAC 02.010. APPLICABILITY AND ELIGIBILITY. (a) This chapter sets out the administrative review procedure available to a person affected by a decision of the department. If a statute or a provision of this title prescribes a different procedure with respect to a particular decision, that procedure must be followed when it conflicts with this chapter.

(b) Unless a statute does not permit an appeal, an applicant is eligible to appeal or request reconsideration of the department's decision on the application. An applicant is eligible to participate in any appeal or request for reconsideration filed by any other eligible party.

(c) If a statute restricts eligibility to appeal or request reconsideration of a decision to those who have provided timely written comment or public hearing testimony on the decision, the department will give notice of that eligibility restriction as part of its public notice announcing the opportunity to comment.

(d) If the department gives public notice and allows a public comment period of at least 30 days on a proposed action, and if no statute requires opportunity for public comment, the department may restrict eligibility to appeal or request reconsideration to those who have provided timely written comment or public hearing testimony on the proposed action by including notice of the restriction as part of its public notice announcing the opportunity to comment.

(e) An eligible person affected by a decision of the department that the commissioner did not sign or cosign may appeal the decision to the commissioner within the period set by 11 AAC 02.040.

(f) An eligible person affected by a decision of the department that the commissioner signed or cosigned may request the commissioner's reconsideration within the period set by 11 AAC 02.040.

(g) A person may not both appeal and request reconsideration of a decision. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.04.900	AS 38.08.110	AS 41.15.020	AS 44.37.011
	AS 29.65.050	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 46.15.020
	AS 29.65.120	AS 38.05.035	AS 38.50.160	AS 41.21.020	AS 46.17.030

11 AAC 02.015. COMBINED DECISIONS. (a) When the department issues a combined decision that is both a final disposal decision under AS 38.05.035(e) and any other decision, including a disposal decision combined with a land use plan decision, or a disposal decision to grant certain applications combined with a decision to deny others, the appeal process set out for a disposal decision in AS 38.05.035(i) - (m) and this chapter applies to the combined decision.

(b) A decision of the department may include a statement that a final consistency determination under AS 46.40 (Alaska Coastal Management Program) has been rendered in conjunction with the decision. A person may not, under this chapter, appeal or request reconsideration of the final consistency determination, including a requirement necessary solely to ensure the activity is consistent with the Alaska coastal management program as approved under AS 46.40. (Eff. 9/19/2001, Register 159)

Authority:	AS 29.65.050	AS 38.04.900	AS 38.05.035	AS 38.09.110
	AS 29.65.120	AS 38.05.020	AS 38.08.110	AS 38.50.160

11 AAC 02.020. FINALITY OF A DECISION FOR PURPOSES OF APPEAL TO COURT. (a) Unless otherwise provided in a statute or a provision of this title, an eligible person must first either appeal or request reconsideration of a decision in accordance with this chapter before appealing a decision to superior court.

(b) The commissioner's decision on appeal is the final administrative order and decision of the department for purposes of appeal to the superior court.

(c) The commissioner may order or deny a request for reconsideration within 30 calendar days after issuance of the decision, as determined under 11 AAC 02.040(c)-(e). If the commissioner takes no action during the 30-day period, the request for reconsideration is considered denied. Denial of a request for reconsideration is the final administrative order and decision of the department for purposes of appeal to the superior court.

(d) If the commissioner timely orders reconsideration of the decision, the commissioner may affirm the decision, issue a new or modified decision, or remand the matter to the director for further proceedings. The commissioner's decision, other than a remand decision, is the final administrative order and decision of the department for purposes of appeal to the superior court. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.04.900	AS 38.08.110	AS 41.15.020	AS 44.37.011
	AS 29.65.050	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 46.15.020
	AS 29.65.120	AS 38.05.035	AS 38.50.160	AS 41.21.020	AS 46.17.030

11 AAC 02.030. FILING AN APPEAL OR REQUEST FOR RECONSIDERATION. (a) An appeal or request for reconsideration under this chapter must

- (1) be in writing;
- (2) be filed by personal service, mail, fax, or electronic mail;
- (3) be signed by the appellant or the appellant's attorney, unless filed by electronic mail; an appeal or request for reconsideration filed by electronic mail must state the name of the person appealing or requesting reconsideration and a single point of contact to which any notice or decision concerning the appeal or request for reconsideration is to be sent;
- (4) be correctly addressed;
- (5) be timely filed in accordance with 11 AAC 02.040;
- (6) specify the case reference number used by the department, if any;
- (7) specify the decision being appealed or for which reconsideration is being requested;
- (8) specify the basis upon which the decision is challenged;
- (9) specify any material facts disputed by the appellant;

(10) specify the remedy requested by the appellant;

(11) state the address to which any notice or decision concerning the appeal or request for reconsideration is to be mailed; an appellant may also provide a telephone number where the appellant can be reached during the day or an electronic mail address; an appeal or request for reconsideration filed electronically must state a single address to which any notice or decision concerning the appeal or request for reconsideration is to be mailed;

(12) identify any other affected agreement, contract, lease, permit, or application by case reference number, if any; and

(13) include a request for an oral hearing, if desired; in the appeal or request for reconsideration, the appellant may include a request for any special procedures to be used at the hearing; the appeal or request for reconsideration must describe the factual issues to be considered at the hearing.

(b) At the time an appeal is filed, and up until the deadline set out in 11 AAC 02.040(a) to file the appeal, an appellant may submit additional written material in support of the appeal, including evidence or legal argument.

(c) If public notice announcing a comment period of at least 30 days was given before the decision, an appellant may not submit additional written material after the deadline for filing the appeal, unless the appeal meets the requirement of (a) of this section and includes a request for an extension of time, and the department determines that the appellant has shown good cause for an extension. In considering whether the appellant has shown good cause, the department will consider factors including one or more of the following:

- (1) comments already received from the appellant and others;
- (2) whether the additional material is likely to affect the outcome of the appeal;
- (3) whether the additional material could reasonably have been submitted without an extension;
- (4) the length of the extension requested;
- (5) the potential effect of delay if an extension is granted.

(d) If public notice announcing a comment period of at least 30 days was not given before the decision, an appellant may submit additional written material after the deadline for filing the appeal, if the appeal meets the requirements of (a) of this section and includes a notice of intent to file the additional written material. The department must receive the additional written material within 20 days after the deadline for filing the appeal, unless the appeal also includes a request for an extension of time, and the department determines that the appellant has shown good cause for an extension. In considering whether the appellant has shown good cause, the department will consider factors including one or more of the following:

- (1) comments already received from the appellant and others;
- (2) whether the additional material is likely to affect the outcome of the appeal;
- (3) whether the additional material could reasonably have been submitted without an extension;
- (4) the length of the extension requested;
- (5) the potential effect of delay if an extension is granted.

(e) At the time a request for reconsideration is filed, and up until the deadline to file a request for reconsideration, an appellant may submit additional written material in support of the request for reconsideration, including evidence or legal argument. No additional written material may be submitted after the deadline for filing the request for reconsideration.

(f) If the decision is one described in 11 AAC 02.060(c), an appellant who believes a stay of the decision is justified may ask for a stay as part of the appeal or request for reconsideration. The appellant must include an argument as to why the public interest requires a stay. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.04.900	AS 38.08.110	AS 41.15.020	AS 44.37.011
	AS 29.65.050	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 46.15.020
	AS 29.65.120	AS 38.05.035	AS 38.50.160	AS 41.21.020	AS 46.17.030

Editor's note: The address for an appeal or request for reconsideration by personal service and by mail is: Department of Natural Resources, Commissioner's Office, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501-3561. The number for an appeal or request for reconsideration by fax is: 1-907-269-8918. The electronic mailing address for an appeal or request for reconsideration by electronic mail is: dnr.appeals@alaska.gov

11 AAC 02.040. TIMELY FILING; ISSUANCE OF DECISION. (a) To be timely filed, an appeal or request for reconsideration must be received by the commissioner's office within 20 calendar days after issuance of the decision, as determined under (c) or (d) of this section, unless another period is set by statute, regulation, or existing contract. If the 20th day falls on a day when the department is officially closed, the appeal or request for reconsideration must be filed by the next working day.

(b) An appeal or request for reconsideration will not be accepted if it is not timely filed.

(c) If the appellant is a person to whom the department delivers a decision by personal service or by certified mail, return receipt requested, issuance occurs when the addressee or the addressee's agent signs for the decision. If the addressee or the addressee's agent neglects or refuses to sign for the certified mail, or if the address that the addressee provided to the department is not correct, issuance by certified mail occurs when the decision is deposited in a United States general or branch post office, enclosed in a postage-paid wrapper or envelope, addressed to the person's current address of record with the department, or to the address specified by the appellant under 11 AAC 02.030(a)(11).

(d) If the appellant is a person to whom the department did not deliver a decision by personal service or certified mail, issuance occurs

(1) when the department gives public notice of the decision; or

(2) if no public notice is given, when the decision is signed; however, the department may state in the decision a later date of issuance and the corresponding due date for any appeal or request for reconsideration.

(e) The date of issuance constitutes delivery or mailing for purposes of a reconsideration request under AS 44.37.011(d) or AS 44.62.540(a). (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.04.900	AS 38.08.110	AS 41.15.020	AS 44.37.011
	AS 29.65.050	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 46.15.020
	AS 29.65.120	AS 38.05.035	AS 38.50.160	AS 41.21.020	AS 46.17.030

11 AAC 02.050. HEARINGS. (a) The department will, in its discretion, hold a hearing when questions of fact must be resolved.

(b) The hearing procedure will be determined by the department on a case-by-case basis. As provided in 11 AAC 02.030(a)(13), any request for special procedures must be included with the request for a hearing.

(c) In a hearing held under this section

(1) formal rules of evidence need not apply; and

(2) the hearing will be recorded, and may be transcribed at the request and expense of the party requesting the transcript. (Eff. 11/7/90, Register 116)

Authority:	AS 03.05.010	AS 38.04.900	AS 38.09.110	AS 41.17.055	AS 46.17.030
	AS 29.65.050	AS 38.05.020	AS 38.50.160	AS 41.21.020	
	AS 29.65.120	AS 38.08.110	AS 41.15.020	AS 46.15.020	

11 AAC 02.060. STAYS; EXCEPTIONS. (a) Except as provided in (c) and (d) of this section, timely appealing or requesting reconsideration of a decision in accordance with this chapter stays the decision during the commissioner's consideration of the appeal or request for reconsideration. If the commissioner determines that the public interest requires removal of the stay, the commissioner will remove the stay and allow all or part of the decision to take effect on the date set in the decision or a date set by the commissioner.

(b) Repealed 9/19/2001.

(c) Unless otherwise provided, in a statute or a provision of this title, a decision takes effect immediately if it is a decision to

(1) issue a permit, that is revocable at will;

(2) approve surface operations for a disposal that has already occurred or a property right that has already vested; or

(3) administer an issued oil and gas lease or license, or an oil and gas unit agreement.

(d) Timely appealing or requesting reconsideration of a decision described in (c) of this section does not automatically stay the decision. However, the commissioner will impose a stay, on the commissioner's own motion or at the request of an appellant, if the commissioner determines that the public interest requires it.

(e) A decision takes effect immediately if no party is eligible to appeal or request reconsideration and the commissioner waives the commissioner's right to review or reconsider the decision. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.04.900	AS 38.08.110	AS 41.15.020	AS 46.15.020
	AS 29.65.050	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 46.17.030
	AS 29.65.120	AS 38.05.035	AS 38.50.160	AS 41.21.020	

11 AAC 02.070. WAIVER OF PROCEDURAL VIOLATIONS. The commissioner may, to the extent allowed by applicable law, waive a requirement of this chapter if the public interest or the interests of justice so require. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 29.65.120	AS 38.05.035	AS 38.50.160	AS 41.21.020
	AS 03.10.020	AS 38.04.900	AS 38.08.110	AS 41.15.020	AS 46.15.020
	AS 29.65.050	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 46.17.030

11 AAC 02.080. DEFINITIONS. Repealed. (Eff. 11/7/90, Register 116; repealed 9/19/2001, Register 159)

Editor's note: The subject matter formerly set out at 11 AAC 02.080 has been moved to 11 AAC 02.900.

11 AAC 02.900. DEFINITIONS. In this chapter,

(1) "appeal" means a request to the commissioner to review a decision that the commissioner did not sign or cosign;

(2) "appellant" means a person who files an appeal or a request for reconsideration.

(3) "commissioner" means the commissioner of natural resources;

(4) "decision" means a written discretionary or factual determination by the department specifying the details of the action to be allowed or taken;

(5) "department" means, depending of the particular context in which the term is used, the Department of Natural Resources, the commissioner, the director of a division within the Department of Natural Resources, or an authorized employee of the Department of Natural Resources;

(6) "request for reconsideration" means a petition or request to the commissioner to review an original decision that the commissioner signed or cosigned. (Eff. 11/7/90, Register 116; am 9/19/2001, Register 159)

Authority:	AS 03.05.010	AS 38.05.020	AS 38.09.110	AS 41.17.055	AS 44.62.540
	AS 29.65.050	AS 38.05.035	AS 38.50.160	AS 41.21.020	AS 46.15.020
	AS 29.65.120	AS 38.08.110	AS 41.15.020	AS 44.37.011	AS 46.17.030
	AS 38.04.900				

Editor's note: The subject matter of 11 AAC 02.900 was formerly located at 11 AAC 02.080. The history note for 11 AAC 02.900 does not reflect the history of the earlier section.

Vicinity Map

Sale Map